

REMARKS

The Office Action dated March 22, 2007 has been received and carefully note, and the telephonic interview with Examiner Le was conducted on June 13, 2007. The following remarks are submitted as a full and complete response thereto.

Initially, the Examiner is thanked for granting and conducting the telephonic interview on June 13, 2007 with Applicants' representative. The Examiner is also thanked for indicating that the amendments, as shown above, overcome the pending prior art rejection over Amirijoo (U.S. Patent No. 6,728,217), which will be further discussed below for the record.

Claims 1-4, 6-9, 11-17, 19-22, 24-30, 32-35, and 37-47 are pending and under consideration, of which claims 1, 14, 27, and 42-47 are independent. Claims 5, 10, 18, 23, 31, and 36 were canceled in the Response filed November 22, 2006. By this Response, independent claims 1, 14, 27, and 42-47 have been amended to further improve the clarity of the features recited therein. Support for the amendments can be found in, e.g., lines 4-5 of page 2 of the specification. No new matter has been added.

As will be discussed below, each of the presently pending claims recite subject matter which is neither disclosed nor suggested in the cited prior art.

On page 2 of the Office Action, claims 42-47 were rejected under 35 U.S.C. §102(e) as being anticipated by Amirijoo et al. (U.S. Patent No. 6,728,217 – hereinafter Amirijoo). The Office Action contended that Amirijoo teaches each and every limitation recited in the rejected claims. In response, Applicants respectfully traverse the rejection

for the reason that Amirijoo fails to disclose or suggest all of the recitations in the rejected claims.

Applicants' independent claim 1, upon which claims 2-4, 6-9, and 11-13 depend, recites a method for deciding on handover in a cellular communication system. The method includes collecting bit rate information related to a mobile station, when the mobile station is moving from a first cell to a second cell wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station. The collecting process includes measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Applicants' independent claim 14, upon which claims 15-17, 19-22, and 24-26 depend, recites a cellular communication system. The system includes cells and a mobile station having a connection to at least a first cell providing a certain bit rate to the mobile station. The system is configured such that when the mobile station is moving from the first cell to a second cell, to collect bit rate information related to the mobile station by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and to use the bit rate information to

decide on when mobile station handover from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Applicants' independent claim 27, upon which claims 28-30, 32-35, and 37-41 depend, recites a system element for controlling handovers in a cellular communication system. The system includes cells and a mobile station having a connection to at least a first cell providing a certain bit rate to the mobile station, wherein the system element is configured to conduct certain operations when the mobile station is moving from the first cell to a second cell. The operations may include collecting bit rate information related to the mobile station by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Independent claim 42 recites a mobile station for use in a cellular communication system comprising cells. The mobile station is configured to collect bit rate information related to the mobile station by measuring, when the mobile station has a connection to at

least a first cell, a bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by a second cell. The mobile station is further configured to use the bit rate information to decide on when handover of the mobile station from a first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Applicants' independent claim 43 recites a method for deciding on handover in a cellular communication system. The method includes collecting bit rate information related to a mobile station, the collecting comprising measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell. The method further includes using the bit rate information for deciding on handover of the mobile station from the first cell to the second cell, the deciding comprising deciding to perform the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station, wherein the bit rate information is a transfer rate with which data is transmitted.

Applicants' independent claim 44 recites a cellular communication system. The system includes cells and a mobile station. The system is configured to collect bit rate

information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell, and use the bit rate information for deciding on mobile station handover from the first cell to the second cell such that the system is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Applicants' independent claim 45 recites a system element for controlling handovers in a cellular communication system comprising cells and a mobile station. The system element is configured to collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell. The system element is further configured to use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the system element is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Applicants' independent claim 46 recites a mobile station for use in a cellular communication system having cells. The mobile station being configured to collect bit

rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell. The mobile station further being configured to use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the mobile station is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

Independent claim 47 is directed to a system for deciding on handover in a cellular communication system. The system includes a collecting unit configured to collect bit rate information related to a mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell, and a deciding unit configured to decide on handover of the mobile station from the first cell to the second cell using the bit rate information by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the bit rate information is a transfer rate with which data is transmitted.

As will be discussed, Amirijoo fails to teach or suggest all of the recitations of the pending claims.

Amirijoo generally describes a telecommunications system configured to improve the quality of data calls within a cellular network by dynamically changing the air interface data rate for transparent and non-transparent data services. As the quality of a higher data rate radio link, as indicated by detected Bit Error Rate (BER), deteriorates below a specified upper quality threshold, a change of channel coding to a lower data rate is ordered by the network. If the radio link quality measurements after a specified period of time indicate that the quality level has exceeded a specified lower quality threshold, the data rate is changed back to the higher data rate.

In the rejection, the Office Action consistently interpreted Amirijoo's Bit Error Rate (BER) as Applicants' claimed bit rate information. However, as indicated in, e.g., col. 3, lines 66-67 of Amirijoo, BER is the percentage of the total number of received bits wrongly detected at either a mobile station or base transceiver station. Moreover, Amirijoo is completely silent regarding using bit rate information that is a transfer rate with which data is transferred as recited in Applicants' pending claims.

Amirijoo also describes determining whether neighboring cells can provide adequate quality for data call. In col. 4, lines 55-64, for example, of Amirijoo, the following disclosure is found:

*To determine whether one of the neighboring cells 22b can provide adequate quality for the data call (step 312), **the BSC 23 must consider not only the BER 15b for the neighboring cells 22b at the 14.4 kbps data rate, but also the predicted BER for the serving cell 22a at a lower data rate,** [emphasis added] such as the 9.6 kbps data rate. If the BER 15b of any neighboring cell 22b at 14.4 kbps is lower (better) than the predicted BER*

of the serving cell at 9.6 kbps, the BSC 23 chooses the best one of these neighboring cells 22b to perform a handover to (step 315).

As shown above, in addition to consider BER for neighboring cells, the predicted BER for the serving cell must be consider at a lower data rate. That is, Amirijoo requires BER for neighboring cells and predicted BER for a serving cell to be determined in order for the invention described therein to function as intended. Hence, assuming that BER is the same as the transfer rate with which data is transmitted; Amirijoo cannot anticipate Applicants claimed invention because of the above-mentioned specific requirement of Amirijoo.

In view of the above, Applicants respectfully assert that Amirijoo does not teach, show, or suggest collecting or using of bit rate information, which is a transfer rate with which data is transmitted. Accordingly, Applicants respectfully request reconsideration and withdrawal of the §102(e) rejection of claims 42-47.

On page 4 of the Office Action, claims 1-4, 6-7, 9, 11-17, 19-20, 22, 26-30, 32-33, 35, and 39-41 were rejected under 35 U.S.C. §103(a) as being unpatentable over Amirijoo in view of Santhoff (U.S. Patent No. 6,907,244 – hereinafter Santhoff). With respect to independent claims 1, 14, and 27, the Office Action took the position that Amirijoo teaches each and every limitation recited in the claims, except for the mobile station moving from first cell to second cell. However, the Office Action applied Santhoff as teaching this limitation, and the Office Action concluded that it would have been obvious for one of ordinary skill in the art to have combined the teaching of the

cited references to generate Applicants' claimed invention. Applicants respectfully traverse this rejection because the cited references, when taken alone or in combination, fail to teach, show, or suggest each and every limitation recited in independent claims 1, 14, and 27 and their respective dependent claims 2-4, 6-9, 11-13, 15-17, 19-22, 24-26, 28-30, 32-35, and 37-41.

Santhoff generally describes dynamic channel reassignment capability between mobile units, base stations and sectors within base station coverage area. Particularly, Santhoff describes maintaining dual communications with an adjoining base station in order to reduce bit error rate and to maintain signal strength. Santhoff further describes the use of BER in channel reassignment. However, Santhoff does not teach, disclose, or suggest collecting or using bit rate information, which is a transfer rate with which data is transmitted.

Moreover, as discussed above in relation to the §102(e) rejection of independent claims 42-47, Amirijoo does not teach, show, or suggest collecting or using bit rate information, which is a transfer rate with which data is transmitted. Therefore, Amirijoo and Santhoff, alone or in combination, do not teach, disclose, or suggest all of the features recited in the rejected claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claims 1-4, 6-7, 9, 11-17, 19-20, 22, 26-30, 32-33, 35, and 39-41.

On page 8 of the Office Action, claims 8, 21, and 34 were objected to as being dependent on a rejected base claim. In response, Applicants respectfully assert that the

arguments set forth above in relation to their respective base claims 11, 14, and 27 are applicable to the objection to claims 8, 21, and 34. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection.

As discussed above, Amirijoo and Santhoff, separately or combined, fail to teach, disclose, or suggest at least collecting or using bit rate information, , which is a transfer rate with which data is transmitted, as recited in the pending claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the pending rejections over Amirijoo and Santhoff.

In view of the above, Applicants respectfully submit that each of the claims 1-4, 6-9, 11-17, 19-22, 24-30, 32-35, and 37-47 recites subject matter which neither disclosed nor suggested in the cited reference to Amirijoo and Santhoff. It is therefore respectfully requested that these pending rejections be withdrawn, and this application pass to issue with the allowance of pending claims 1-4, 6-9, 11-17, 19-22, 24-30, 32-35, and 37-47.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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